

March 1, 2007 patent

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Title of Invention: Snap Track Decorative Moldings

SPECIFICATIONS

Geometric molded ceiling

TITLE

This invention relates to a system of ceiling moldings referred to in this application as
“SNAP TRACK DECORATIVE MOLDINGS”.

CROSS REFERENCE

Not Applicable

BACKGROUND OF THE INVENTION

It is common for decorative ceiling molding systems to be made of plaster, metal, plaster coated polystyrene and wood products. The methods of attaching these moldings to ceilings are by adhesives, clips, tape, screws, cement-based materials, nails or a combination of these methods. Any holes in the surface are then filled with a compatible material and the surface is then prepared to match the rest of the finished surface. These traditional technologies are expensive, time-consuming, cumbersome and require not only the use of skilled professionals, but a variety of complex and costly tools.

Some systems have clamps, screws, mounting brackets or pressure-fitting snapping devices that allow the moldings to be taken apart for painting purposes. There are systems that have preformed mitered corners and connecting pieces that butt together or overlap (shiplap) to allow for assembly; systems that require the corners to be mitered on site. There are also temporary systems that allow for removal of the entire system in order to reuse it elsewhere. These custom systems are also expensive, time-consuming to install and generally require specialty tools and skill level. These problems are compounded by materials handling, standardized sizing, and installation procedures requiring more than one installer.

SUMMARY OF THE INVENTION

This invention consists of three (3) component parts that when assembled together, form a complete decorative molded ceiling that can be constructed in a wide variety of geometric patterns. A pattern or layout is mapped out on a supporting ceiling surface using a pencil or chalk line. At strategic points, decorative blocks are fastened to this supporting ceiling surface. A bottom channel track is cut to fit between the blocks and is anchored to the supporting ceiling surface. The cuts to the bottom track channel are mirrored on the track channel cover or cap. The track channel cover or cap is placed over the bottom track channel and snapped into position.

BRIEF DESCRIPTION OF VIEWS OF DRAWINGS

Figure 1 represents a cross sectional view of track channel. This channel contains a cavity for conducting wire and has a series of holes penetrating its surface to allowing fastening to a supporting surface by a fastening device. The sides of said track channel are flexible and have tapered ends that allow them to fit into a locking step.

Figure 2 represents an isometric view of an extended length of track channel illustrating the cavity and the first in a series of holes penetrating its surface to allow fastening to supporting a surface by a fastening device.

Figure 3 represents a decorator block that is a stop for the track channel and the track channel cover. The blocks are fastened to the supporting surface through a counterbored hole such that a fastening device is attached to said supporting surface.

Figure 4 represents a cross section of track channel cover that fits over the track channel. The interior flanges of said cover have protruding sides that form a locking step that allows the tapered flexible sides from the track channel to snap into position.

Figure 5 represents an isometric view of an extended length of track channel cover that fits over the track channel.

Figure 6 illustrates a cross sectional view of the track channel and the track channel cover as they appear once the track channel has been attached to the supporting surface by a fastening device and the track channel cover has been snapped into position and held by a locking step.

Figure 7 illustrates a cross sectional view of both the track channel and the track channel cover butting up to a decorator block as they may appear once the decorator block has been anchored to a supporting surface and the track channel has been attached to the same supporting surface by a fastening device and the track channel cover has been snapped into position and held by a locking step.

Figure 8 represents a view of a partially completed grid illustrating decorator blocks, track channel with holes penetrating its surface and track channel cover mirroring the track channel.

DETAILED DESCRIPTION OF THE INVENTION

The disadvantages and difficulties of a traditional ceiling system can be eradicated by making the bottom channel of the component parts from plastic or lightweight metal. This product provides the necessary flexibility to facilitate manufacturing, variety in design and easy handling. The component parts have a flexible locking step that continues for the full length of the bottom track channel and track channel cover or cap. There is also a counterbore in the exposed surface of the decorator blocks that facilitates the attachment to a supporting ceiling surface. The locking step allows the moldings to be securely fastened for the full length of the unit rather than at predetermined points along the surface of the component part. Once a portion of the component track cover is squeezed together and snapped into the appropriate receiver, the rest of the track cover will snap into position using a little pressure and continue to join in the same manner that has already been commenced with the initial assembly.

At the production level, a number of finishes from plaster, stucco, wood veneer and paint can be bonded to the exterior surface of the channel track cover or cap. This technology is already in place for other base materials. These exterior finishes create several different textured looks that simulate authentic wood or plaster finishes. This system can be easily installed with rawl plugs and screws for the bottom track channel and a cutting tool such as a miter saw or hacksaw for cutting the plastic to the required length.

The basic system consists of lengths of a bottom track channel, lengths of channel track cover or capping and decorator blocks. Higher ceilings require deeper and wider channel cover to give definition to the finished product. Once the pattern has been established by using a measuring tape and chalk line, the required component parts can be prepared and installed.

A decorator block is used wherever there is an outside corner of the pattern or wherever a block is desired on the perimeter or interior of the pattern. Generally, these points will occur at right angles, perpendicular points, or any other point or angle of intersection within the designed system or pattern. If different geometric designs such as squares, rectangles, hexagons or octagons are being used, the blocks are installed at strategic locations and both the bottom track channel and track channel cover or cap will be mitered accordingly.

By attaching a bottom channel track with tapered flexible sides and a locking step to a supporting ceiling surface, the length of the channel can be extended to form the desired pattern. By using a tapered flexible side shaped like a right-angled triangle and a channel with a short protruding flange to receive its counterpart, component parts snap together by means of a locking step. This locking step design is used to fasten the track channel cover to the bottom track channel to form a decorative unit that has aesthetic value.

The flexible tapered sides of the bottom channel track allow a channel track cover or cap molding to snap into position over the bottom channel track by means of a locking step. The bottom channel track cover as well as the channel track cover or cap, can be cut to the required length such that it butts up to the decorative blocks as dictated by the pattern.

The gross height of the channel cover or cap is designed such that once it is in place over the bottom track channel, it creates a small gap between the outer edge of the cover channel and the supporting surface ceiling. This gap allows for imperfections in the level of the supporting ceiling that would not allow the channel cover or cap to fit tightly over the bottom channel track flush to the ceiling surface.

Any required touch-ups can be made with a compatible material, usually the same material as the channel cover or cap and can be easily applied. Thus, a complete geometric system of ceiling moldings can be installed to a desired pattern and/or size with materials that are lightweight, consumer friendly, easy to install and cost-effective relative to other materials on the market.

DESCRIPTION OF THE VIEWS

Figure 1 refers to a bottom track channel of extended length (1) having flexible tapered sides (2) whereby the track channel is attached to a supporting surface through a series of countersunk holes (3) that penetrate the surface of the bottom track channel.

Figure 2 is an isometric view of an extended length of track channel (1) with flexible sides (2) that is capable of transporting wire and/or cable and thereby acting as a conduit (4). It has a series of countersunk holes (3) for fastening said channel to a supporting ceiling surface.

Figure 3 is a decorator block (5) that has a counterbore (6) in the center of its exposed surface to allow fastening to a supporting ceiling surface.

Figure 4 represents an cross section of an extended length of channel track cover (7) that has a protrusion on opposite sides of its interior (8) such that the flexible sides of the track channel (1) forming a locking step (2) will snap or lock into position when the channel track cover or cap is placed over the bottom track channel (1) and the flexible sides (2) of the bottom channel track are squeezed together thus allowing the snapping into position by means of a locking step.

Figure 5 is an isometric view of an extended length of track channel cover or cap (7) illustrating the interior flanges (8) that act as a locking step.

Figure 6 illustrates an extended length of bottom track channel (1) being anchored to a supporting ceiling surface by a fastener through a countersunk hole in its surface (3) and covered by a similar extended length of track channel cover or cap (7) that has a protrusion on opposite sides of its interior (8) that allows the flexible sides of the bottom track channel (1) to lock into position when the sides of the bottom track channel (2) are compressed and the track channel cover (7) is placed over top and secured in position thus forming a locking step.

Figure 7 is a cross-section of a completed portion of a layout. Decorator Block (5) anchored to a supporting ceiling surface with a fastening device through a counterbore (6) at a predetermined point on a layout. An extended length of track channel (1) is attached to a supporting ceiling surface by using a fastening device through the countersunk holes (3) that penetrate the surface of bottom channel track. The area inside the tapered flexible sides (2) is designed to act as a conduit (4) for transporting wire and/or cable. The extended length of channel track cover (7) is cut to the exact size and snapped over the tapered flexible sides (2) of track channel (1) when these sides are compressed. The interior of the track channel cover has protruding flanges on opposite sides (8) that receive the flexible tapered sides (2) of the track channel to form a locking step.

As a variant, the ceilings, being higher, use a version that is deeper and wider to add definition to the final pattern.

Figure 8 is a front view of a partially completed system utilizing the component parts in a manner that illustrates how a finished layout would appear. A larger layout would be necessary to show multiples of said component parts. This figure illustrates the decorator blocks (5), bottom track channel (1), holes penetrating the surface of the track channel (3) and track channel cover or cap (7).